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U.S.
DEPARTMENT
OF
AGRICULTURE

ECONOMIC
RESEARCH
SERVICE

FEBRUARY 1968

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ECONOMIC TRENDS

ITEM	UNIT OR BASE PERIOD	'57-'59 AVERAGE	1966		1967		
			YEAR	DECEMBER	OCTOBER	NOVEMBER	DECEMBER
Prices:							
Prices received by farmers	1910-14=100	242	266	257	251	250	253
Crops	1910-14=100	223	235	229	224	227	231
Livestock and products	1910-14=100	258	292	281	275	269	272
Prices paid, interest, taxes and wage rates	1910-14=100	293	334	337	345	344	345
Family living items	1910-14=100	286	315	318	324	325	325
Production items	1910-14=100	262	285	287	289	287	288
Parity ratio		83	80	76	73	73	73
Wholesale prices, all commodities	1957-59=100	—	105.9	105.9	106.1	106.2	—
Industrial commodities	1957-59=100	—	104.7	105.5	106.8	107.1	—
Farm products	1957-59=100	—	105.6	101.8	97.1	96.4	—
Processed foods and feeds	1957-59=100	—	113.0	112.8	111.7	110.9	—
Consumer price index, all items	1957-59=100	—	113.1	114.7	117.5	117.8	—
Food	1957-59=100	—	114.2	114.8	115.7	115.6	—
Farm Food Market Basket: ¹							
Retail cost	Dollars	983	1,095	1,090	1,084	1,081	1,090
Farm value	Dollars	388	443	420	409	401	409
Farm-retail spread	Dollars	595	652	670	675	680	681
Farmers' share of retail cost	Per cent	39	40	39	38	37	37
Farm Income:							
Volume of farm marketings	1957-59=100	—	121	138	174	168	135
Cash receipts from farm marketings	Million dollars	32,247	43,219	3,889	4,918	4,626	3,800
Crops	Million dollars	13,766	18,384	1,865	2,601	2,592	1,900
Livestock and products	Million dollars	18,481	24,835	2,024	2,317	2,034	1,900
Realized gross income ²	Billion dollars	—	49.7	49.9	—	—	48.1
Farm production expenses ²	Billion dollars	—	33.3	34.0	—	—	34.2
Realized net income ²	Billion dollars	—	16.4	15.9	—	—	13.9
Agricultural Trade:							
Agricultural exports	Million dollars	4,105	³ 6,855	632	532	668	—
Agricultural imports	Million dollars	3,977	³ 4,492	352	376	380	—
Land Values:							
Average value per acre	1957-59=100	—	⁴ 156	—	—	⁴ 166	—
Total value of farm real estate	Billion dollars	—	⁴ 179.3	—	—	⁴ 188.8	—
Gross National Product: ²							
Consumption ²	Billion dollars	457.4	743.3	762.1	—	—	807.6
Investment ²	Billion dollars	294.2	465.9	473.8	—	—	501.4
Government expenditures ²	Billion dollars	68.0	118.0	122.2	—	—	120.7
Net exports ²	Billion dollars	92.4	154.3	161.7	—	—	181.5
	Billion dollars	2.7	5.1	4.3	—	—	4.0
Income and Spending: ⁵							
Personal income, annual rate	Billion dollars	365.3	584.0	605.0	635.9	642.4	648.1
Total retail sales, monthly rate	Million dollars	17,098	25,306	25,368	26,089	26,467	26,343
Retail sales of food group, monthly rate	Million dollars	4,160	5,927	5,861	6,054	6,112	—
Employment and Wages: ⁵							
Total civilian employment	Millions	63.9	72.9	73.9	74.6	75.1	75.7
Agricultural	Millions	5.7	4.0	4.0	3.7	3.8	4.3
Rate of unemployment	Per cent	5.8	3.8	3.7	4.3	3.9	3.7
Workweek in manufacturing	Hours	39.8	41.3	41.8	40.7	40.7	40.8
Hourly earnings in manufacturing, unadjusted	Dollars	2.12	2.72	2.77	2.85	2.87	2.90
Industrial Production: ⁵	1957-59=100	—	156	160	157	159	162
Manufacturers' Shipments and Inventories: ⁵							
Total shipments, monthly rate	Million dollars	28,745	44,037	45,511	44,712	46,848	—
Total inventories, book value end of month	Million dollars	51,549	77,897	77,897	81,481	82,083	—
Total new orders, monthly rate	Million dollars	28,365	45,182	45,845	45,782	47,088	—

¹ Average annual quantities of farm food products purchased by urban wage-earner and clerical-worker households (including those of single workers living alone) in 1960-61—estimated monthly.

² Annual rates seasonally adjusted fourth quarter. ³ Preliminary.

⁴ As of November 1. ⁵ Seasonally adjusted

SOURCES: U.S. Dept. of Agriculture (Farm Income Situation,

Marketing and Transportation Situation, Agricultural Prices, Foreign Agricultural Trade and Farm Real Estate Market Developments); U.S. Dept. of Commerce (Current Industrial Reports, Business News Reports, Advance Retail Sales Report and Survey of Current Business); and U.S. Dept. of Labor (The Labor Force and Wholesale Price Index).

THE AGRICULTURAL OUTLOOK

Now that the Nation's 1967 harvest has been added up to a record volume, the focus is on prospects for 1968.

Vagaries of weather in late winter and early spring always make an "if-fy" climate to view farm and marketing prospects. But at any season, such basics as stocks and prices, farmers' intentions, and government programs and policies indicate possible trends . . . such as:

THE RICE SITUATION

World rice supplies have been tightening. Demand has been strengthening both at home and abroad. Needs for U.S. rice are thus expected to be even greater this year than last.

With the record 1967 crop of 89.6 million hundredweight (cwt.) of rough rice, U.S. supplies for the marketing year ending July 1968 are at a high level of 98 million cwt. About one-third of this is likely to be used at home and the rest will be available for export and carryover.

Exports in the first 4 months of this marketing year were running 38 per cent ahead of the same period last year—a year which set a new high of 52 million cwt. (rough basis) for exports.

Domestic use, too, is expected to continue heavy. It ran to 31.4 million cwt. last year. And, on a per capita basis, consumption has risen from 5.7 pounds to 7.3 pounds in the past decade—largely because of greater use in breakfast cereals.

Worldwide, demand for rice has been rising rapidly, along with increases in population and, to a lesser extent, rising incomes. Prices, too, have swung up sharply to reach their highest level since the early 1950's.

In view of the current situation, the 1968 U.S. acreage allotment for rice has been temporarily boosted, and is set at 2.4 million acres—20 per cent larger than for 1967. Acreage seeded could therefore be the largest since the 2.6 million acres planted in 1954.

The price support loan for the 1968 crop has been raised to \$4.60 per cwt.—up 5 cents from

1967 because of the higher parity price expected for rice on August 1, 1968. Marketing quotas are being maintained.

Along with the large U.S. harvest, a record world rice crop of around 179 million metric tons (excluding Communist Asia) is now in prospect for the 1967/68 marketing year. This would be 10 per cent more than last year.

About 13 million tons of the 17-million-ton increase in world output is estimated to be in India. And India is likely to continue as the world's largest importer.

What about the major world suppliers?

The U.S. will probably have somewhat larger export availabilities after meeting domestic and carryover requirements. But the situation is not one of abundance in the traditional "rice bowl" countries: Thailand, Burma and Cambodia.

The 1967 crop in Thailand—principal supplier in world markets until surpassed by the U.S. last year—may be down around 15 per cent from a year ago. Burma is expected to have a 1967/68 output slightly larger than last year, but increasing domestic needs may limit export availabilities.

Thus prospects for U.S. commercial exports are likely to be enhanced during much of calendar year 1968.

A LOOK AT WINTER WHEAT

The winter wheat harvest is still some time away, and the spring wheat crop even further ahead. But, judging by fall plantings and field conditions in December, the 1968 winter wheat crop—bulk of the total U.S. wheat harvest—will be close to the record 1967 winter crop of 1.2 billion bushels.

This year's winter wheat acreage was estimated in December at 49.7 million acres. At 8 per cent below seeded acreage of a year earlier, it is in line with the 13 per cent reduction in the national acreage allotment.

Yields, however, are currently estimated at an above-average level of 24.2 bushels per seeded acre, compared with last year's 22.3 and the 1962–66 average of 22.7.

If the winter wheat crop lives up to the expected 1.2-billion-bushel harvest, the size of the spring wheat crop will determine any changes from last year's all-wheat volume of a record 1.5 billion bushels.

AND HOW ABOUT HOGS?

If hog producers carry out their plans to have slightly fewer sows farrow in the December-May period than last year, hog slaughter in the second half of 1968 will be about the same as in 1967.

This winter and spring, hog prices will probably average about \$1 per 100 pounds less than last year because pork supplies may be up a little and competing beef marketings will continue large.

Large corn crops traditionally stimulate pork production, and the 1967 corn crop was a record. But to help improve hog prices, farmers are being encouraged to restrain production despite the feed abundance.

HIGHLIGHTS OF OTHER COMMODITIES

Fed cattle prices this winter will probably average well above the January-March level of \$24.95 per cwt. a year ago but may weaken somewhat this spring as marketings rise. On January 1, cattle and calves on feed in 39 states totaled 11.4 million head—up 2 per cent from a year earlier.

Fresh vegetable marketings from winter-crop areas in February and March are expected to be much above the low levels of early winter, but below those a year ago. Prices for most vegetables are likely to average substantially higher than last winter.

Because of a general decrease in planted acreage, this year's winter vegetable output is expected to total well below last winter's bumper harvest.

Despite the decline from last year in the total winter vegetable crop, the only leading items likely to be in light supply are carrots, onions, spinach and tomatoes. Supplies of most other vegetables will be above average.

Cotton growers have been plagued by bad weather and insect damage. The 1967 crop—indicated in December at around 7.5 million running bales—is likely to be the smallest since 1895 as a result of cuts in acreage and yields.

THE 1967 EXPORT-IMPORT TALLY

Exports of U.S. farm products in calendar year 1967—now estimated at almost \$6.4 billion—missed by 7 per cent the record 1966 level but were 13 per cent above the 1961–65 average. Oilseeds and oilseed products, tobacco and rice have made substantial gains since the earlier period.

Factors contributing to the 1967 decline were the Mideast situation, economic sluggishness in several European countries, and increased agricultural output in some foreign areas.

Preliminary export figures for major commodity groups in 1967 are compared below with previous levels:

Commodity	1961-65	1966	1967
Million dollars			
Animals and animal products	706	726	676
Cotton, excluding linters	630	432	464
Fruits and preparations	285	315	310
Grains and preparations	2,359	3,186	2,681
Oilseeds and products	853	1,227	1,238
Tobacco, unmanufactured	393	482	499
Vegetables and preparations	152	176	164
Other	266	335	348
Total	5,644	6,879	6,380

Despite the export decline, agriculture contributed over half of the U.S.'s total favorable balance of trade (exports minus imports).

Agricultural imports slackened off in 1967 to an estimated \$4,455 million from \$4,492 million in 1966, while nonagricultural imports rose to \$22,288 million from \$20,916 million during the same period.

Farm products that are competitive, or partially so, with domestic items made up 60 per cent of the 1967 U.S. agricultural imports.

Leading Farmers Trade on Technology To Get Bigger and Better Crop Yields

There is a group of American farmers who can be considered the pacesetters. These are the farmers who, among other things, have increased their crop yields to much higher levels than farmers generally. How do they do it?

To a large extent, their success rests on the ability to take advantage of technology. They know how to tailor their input mixes to produce the crop yields they believe most suited to their operation.

Here's a look at some of the production tactics used by farmers who are setting the pace of corn, cotton and wheat production. All of these leading farmers operated large, well-equipped farms with excellent soils.

Corn. In central Illinois, leading farmers aimed for and got yields of 130 bushels of corn per acre in 1967. In 1960, their yield expectations were only about 100 bushels an acre.

The larger yields were obtained with less labor—4 hours an acre in contrast to 5.5 hours in 1960—as farmers shifted from 4-row to 6-row powered equipment. They also increased the number of plants per acre by narrowing the space between rows and using more seed, 14 pounds per acre compared with 12 in 1960. Use of fertilizer and herbicides was also up from 1960.

Some farmers were growing corn with no cultivation or only once over the field. Not long ago they cultivated three to five times to control weeds. In 1967, they got the same effect with chemical herbicides.

Expenses for variable production inputs were about \$7 an acre higher in 1967 than in 1960. Most of the rise was due to greater quantities of purchased inputs.

Cotton. In the Yazoo-Mississippi Delta, leading farmers last

LEADING FARMERS USE LESS LABOR BUT MORE FERTILIZER AND OTHER INPUTS IN 1967 THAN AT START OF DECADE

Item	Quantity per acre			Cost per acre ¹	
	Unit	1960	1967	1960	1967
Corn for grain, east central Illinois:				Dollars	
Labor ²	Hours	5.5	4.0	5.95	5.60
Power and machine services	—	—	—	12.40	13.90
Seed	Pounds	12	14	2.45	4.25
Fertilizer	Pounds	173	226	14.35	15.85
Pesticides	—	—	—	1.00	3.00
Corn drying	—	—	—	2.50	3.15
Other	—	—	—	1.50	1.50
Total	—	—	—	40.15	47.25
Cotton, Yazoo-Mississippi Delta:					
Labor ²	Hours	82.0	13.5	46.80	13.50
Power and machine services	—	—	—	25.00	29.00
Seed	Pounds	40	18	3.60	2.35
Fertilizer	Pounds	100	90	6.80	5.75
Pesticides and chemicals	—	—	—	13.50	24.00
Custom application of pesticides	—	—	—	4.00	3.40
Ginning	—	—	—	20.25	20.50
Total	—	—	—	119.95	103.50
Wheat, south central Kansas:					
Labor ²	Hours	2.0	2.0	2.10	2.80
Power and machine services	—	—	—	3.70	4.00
Seed	Bushels	1.0	1.0	2.20	2.30
Fertilizer	Pounds	50	85	5.55	9.10
Total	—	—	—	13.55	18.20

¹ Direct costs only. They do not include a charge for land or overhead; hence, in no sense can they be construed as the full costs of production. Neither are they average costs for all farmers in the area. ² Direct labor only. Does not include general or overhead labor not directly attributable to the crop.

year expected yields of 850 pounds of cotton lint an acre on excellent soils planted solid. In 1960, their per acre yield expectations were only 750 pounds an acre.

Labor used on these farms was reduced greatly between 1960 and 1967. Man-hours dropped from 82 hours to 13.5 hours an acre. The leading farms, by and large, have replaced hand chopping with chemical weed control and burning. And almost all their cotton is now machine harvested.

Total input of chemicals on these farms rose substantially. However, use of nitrogen fertilizer was cut back from 100 pounds an acre in 1960 to 90 pounds last year—in line with recent studies showing that farmers were using too much on the good soils.

On balance, the leading cotton growers in the Delta can now expect 100 pounds more lint per acre than in 1960 and are spending \$16 an acre less for direct costs.

Wheat. The leading wheat growers in south central Kansas

have upped their expected yields from 28 bushels an acre in 1960 to 35 bushels last year. To achieve this increase they nearly doubled their fertilizer usage.

Although per acre expenditures for direct costs were up about \$4.65 in 1967 from 1960, they were more than offset by an increase in gross returns. (1)

Livestock Are Living High on Menus That Feature More Convenience Feeds

U. S. livestock eat well.

Measured in tons, annual consumption of harvested feedstuffs (all feeds except grazed and pastured feeds) rose 10 per cent in seven years between 1959 and 1966.

The percentage increase in roughage consumption has been greater than that in concentrates—mainly grains and grain by-products.

There have been some interesting dietary shifts, too. For example:

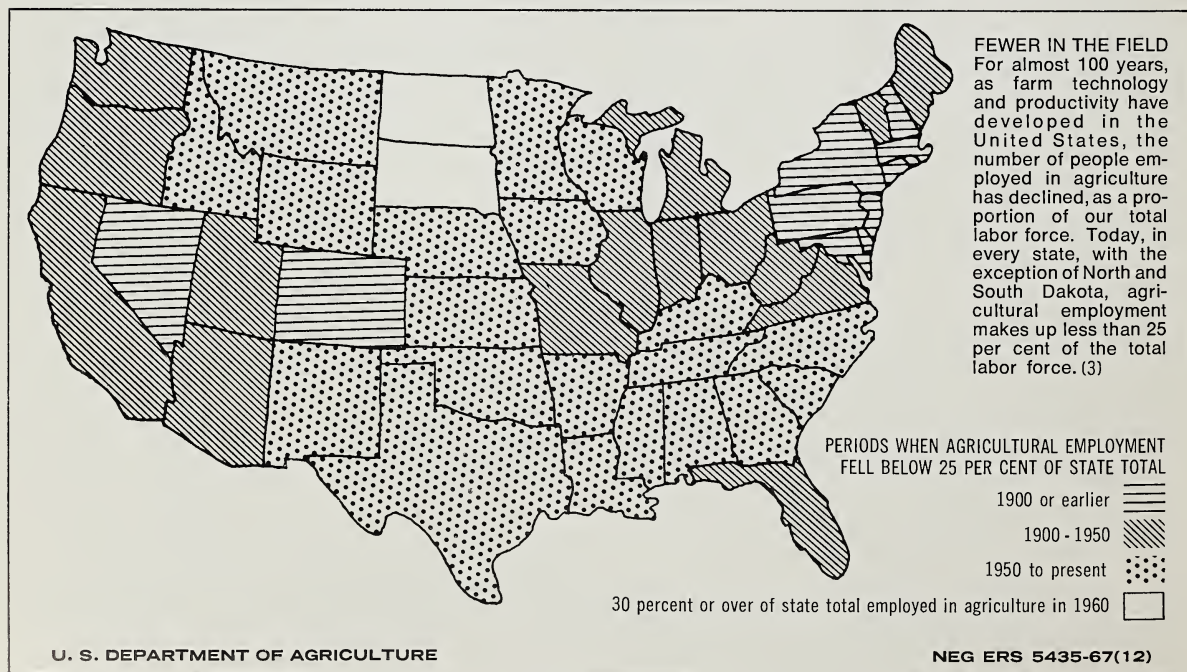
Milk cow numbers on January

1, 1967, were down nearly 22 per cent from seven years earlier; but consumption of feed concentrates by milk cows was up 12 per cent and harvested roughage was up 2 per cent.

And, in spite of the 22 per cent drop in milk cow numbers, output per cow increased enough to hold the decline in total milk output to only a little over 2 per cent in the 1959–66 period.

Consumption of harvested feeds by cattle on feed jumped nearly 80 per cent between 1959 and 1966—and concentrates about 88 per cent. Yearly rate of increase in consumption of harvested roughage in this period averaged out to about 9 per cent. Such large increases reflect the larger number of cattle fed out before slaughter, as well as the buildup of the Nation's beef breeding herd.

While numbers of other beef cattle increased 27 per cent, they ate only 14 per cent more harvested feedstuffs. This suggests that pastures are playing a bigger role in beef production. (2)



'Lincoln's Farmer' Set Department On Right Road as First Agriculture Chief

Five score and six years ago, President Lincoln signed into law an act of Congress establishing the United States Department of Agriculture.

On July 1, 1862 he appointed Isaac Newton, a successful farmer and personal friend, to head the newly formed Department. And in so doing, he set the Department on the road it has followed successfully to this day.

A few months after his appointment, "Lincoln's farmer," as Newton was sometimes called by farm journal critics, outlined his department's objectives:

- Collecting, arranging and publishing statistical and other useful agricultural information;

- Introducing valuable plants and animals from foreign lands;

- Answering farmers' inquiries about agricultural problems;

- Testing farm implements;

- Conducting chemical analyses of soils, grains, fruits, plants, vegetables and manures;

- Establishing a professorship of botany and entomology; and

- Establishing an agricultural library and museum.

Though Newton did little to test farm implements, he achieved the other goals he set for himself and his Department.

The library begun under him is one example. It has grown into one of the most highly regarded agricultural libraries in the world.

In 1863, Newton inaugurated monthly statistical reports developed from data supplied by volunteer crop correspondents in each county—and even from agents abroad.

These reports combined data on rainfall and temperature and condition of principal crops, average current yields, export and import figures of important crops and any available information on foreign agriculture.

Crude by the standards of to-



day's highly sophisticated crop reports, Newton's monthly statistics were nevertheless a vast improvement over earlier agricultural information based on rumors, hearsay and unsystematic reporting.

In January 1897, Newton's Department issued its first annual report of farm product prices.

One account of Newton's death indicates that he died with his farmer's boots on in the service of the Department. He was hurrying to the USDA's experimental farm (which he also inaugurated) on a hot July day to protect samples of wheat from an impending thunderstorm. The exertion brought on fatal sunstroke.

Today's work of the USDA as a whole is an outgrowth of Newton's pioneering efforts to further the agricultural advances envisaged by President Lincoln. (4)

Farm Numbers Drop to 3.1 Million At 1967's Close; Farm Sizes Gain Again

Farm numbers down, farm sizes up. This old familiar story repeated itself again during 1967.

Last year farms operating in the United States numbered approximately 3.1 million. This was 3 per cent fewer than during the previous year and 25 per cent fewer than in 1959.

Total land in farms, at about 1.1 billion acres, also declined from 1966. However, the rate of decrease—less than half of 1 per cent—was much less than that for farm numbers. Since 1959, total land in farms has decreased by about 5 per cent.

Last year's drop in farm numbers was associated with another gain in average farm size. At 360 acres, the average size of farms across the nation in 1967 topped that of 1966 by 9 acres. Since 1959 the average size of farms has increased 25 per cent.

Farm numbers declined most rapidly in New England and the Pacific States from 1966 to 1967. Decreases were 6 and 5 per cent, respectively. In the West North Central, East South Central and Mountain Regions, farm numbers were down by 2 per cent.

About 705,000 farms—or one-fifth of the national total—were located in the West North Central Region last year. The region with the smallest number of farms was New England with 38,900.

A continuation of the trends of recent years would mean that the number of farms operating in the United States during 1968 would drop by about 100,000. Land in farms would decline by another half per cent during the year and average farm size would rise to about 396 acres.

Discontinuance of small farming units and merging of larger units with existing farms continue as the important influences changing farm numbers. (22)

U.S. Farmworker's Output Boosted; More Complex Machinery Lends a Hand

One hundred years after the American Revolution, a farmworker produced enough food and fiber for himself and four other people.

By 1950, he had boosted this to the point of supplying himself and 14 others. Today, it's estimated that his output takes care of at least 39 other people at home and abroad; and signs point to a continued rise.

But the farmer isn't necessarily working longer hours. He's getting help, for example, from more and better machinery.

He has machines that strip cotton, shake nuts from trees, even gather lettuce. They work fast and reduce much of his need for labor. But machines are a costly investment for an individual farmer, and it takes good operators to make them run smoothly and economically.

In many parts of the country, the increasing use of complex farm machinery is bringing a new look to the demands for farm labor. (5)

Ties That Bind Boss to Worker Often Fray When Housing Is Fringe Benefit

Some farmers who traditionally provide housing for their workers might be better off if they didn't.

In terms of costs and employer-employee relations, the house that's meant to be a fringe benefit often turns into a boomerang.

This is likely to happen when worker housing is close to a farm job. The farmer-operator then may find himself on call as a landlord as well as an employer. He bears the brunt of blame when plumbing fails, the furnace breaks down, the refrigerator stops, and the oven burns the pies.

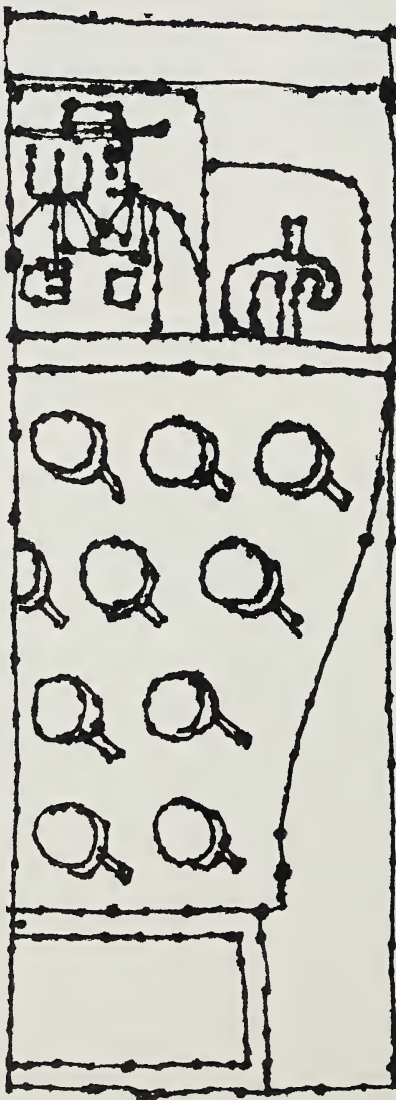
What's more, families in furnished housing tend to compare their house with the "manor

house" of their employer.

A break with tradition may bring a better deal.

If furnished housing is making employer-employee relationships a "bad deal," why furnish it?

The value of the housing could be added to the farmworker's pay. The farmer, in many cases, could then rent the housing to a non-farm family. And the farmworker would be free to find his own rental housing or to start building up an equity in his own home. (6)



Changes in Prices Catch Farmers In Ohio Waiting for Trend To Show Up

How well do farmers adjust to price changes?

Pretty well, according to a study of 21 farms in west central Ohio. But not, the study goes on to point out, as well as they could have.

The farms in the 1957-59 study typically were about 320 acres in size. And the operators did adjust to price changes, but it took them about a year to do it. Apparently, they were waiting for a trend in prices to become fairly well established.


The study included such responses as changing the number of acres devoted to a crop, increasing the size of herds or hiring another hand, and making major improvements on the land or to the farm buildings.

Dairy farmers in the study were most apt to make adjustments in their operations. Hog farmers turned out to be the least likely to change.

The study indicated, in brief, that net income would have been increased if 10 of the farms had increased their corn acreage more than they did; and six should have reduced their corn acreage. Farmers should have cut back their dairy and beef enterprises while increasing the number of fed cattle.

Also, the prevailing prices of hogs, poultry, eggs, lamb and wool favored a reduction for all these enterprises.

But farmers are limited in changing their operations quickly, even when prices switch signals on them. They must cope with high fixed costs of operation and specialized investments in new machinery and equipment, and the costs of the enterprise adjustments themselves. Also, their ability to maneuver is hampered by a desire to maintain a fixed crop rotation and by unfamiliarity with alternatives. (7)


 IN STEP WITH INDUSTRY

Difficulty in financing a new industrial project in a rural community can be a stumbling block to progress. Support from state and local government may help.

Rural communities that might benefit from industry often can't afford it. Too little credit may be at fault.

Since usable factories in need of tenants are not common in rural areas, new or expanding firms usually need to build if they want to locate in an area. If local financing isn't available, they

may be forced to locate elsewhere.

Some state and local governments, hoping to encourage industrialization, have developed programs supplementing existing sources of private credit with public programs.

Usually, government programs below the federal level are based on one of two approaches:

When the local credit base is inadequate, private sources of capital can be supplemented with public funds made available specifically for construction of industrial plants.

When local capital is adequate

but information about private sources is not readily available to industry, or possible backers are reluctant to risk investment, local government can concentrate on making the capital more accessible.

These two general approaches lead to three types of programs:

Local general obligation or revenue bonds for industrial development.

Funds for construction loans can be obtained through local government general obligation bonds. Under this program, the local government issues and backs the

bond and constructs the plant to the specifications of the entering firm. It then leases the plant to the firm for a sum equal to payments required on the bonds. After the bonds are retired, the lease may continue—with the city gaining revenue from it—or the city may relinquish title of the plant to the firm.

Local revenue bonds are similar to general obligation bonds, but they can cover larger amounts and local government is not required to back them in case of default. Repayment of bonds depends entirely on revenue produced by the facility constructed.

State-supported industrial finance authorities supported by state general fund or bond issues.

The objective of this type of financing is to use existing private capital and supplement private funds with public capital.

The state authority makes loans to a local nonprofit industrial development corporation for construction of an industrial facility, and receives the second mortgage on that facility. The local industrial development corporation raises the rest of the funds from private sources of credit and through local subscriptions.

A variation draws state authority loaned from general obligation bonds rather than the state general fund.

State industrial loan insurance.

The state backs a local nonprofit industrial development corporation, financed solely through private sources, insuring repayment of up to 90 per cent of the loan. In return, the state receives a service charge of at least one-quarter per cent of the loan. If the state must repay the loan, the funds come from the state general fund.

Each program appears to have advantages and disadvantages. There is some question about their effectiveness. Studies indicate that public financing programs are mainly important to small firms. (8)

'Rurbania' May Have a Few Answers To Questions Rural Poverty Poses

The question is simple enough: How do you have a better life?

But the answer, for a low-income farmer, can be unusually complicated.

He could quit the farm and try his luck in the city. But his farm background, training, and experience may be little help when he looks for a city job. Besides, though the fields may provide little in the way of living, they represent home to him and his family. Most often he would just as soon stay if he could.

Maybe he decides to hang on to the farm, making out with an extra job. Many a farmer moon-

lights to make a decent living for his family. The trouble is many rural areas just don't have enough of the kind of work a farmer can handle on the side. And what there are in the way of jobs don't pay much and offer little in the way of advancement.

The small town might be the compromise that would work for rural America. Offering many of the job opportunities of the city, the familiarity and ease of access of the countryside, several small towns together might provide the means for area low-income farmers to move up the economic ladder, but not unless the communities were thriving and growing.

With suitable development, such communities would provide the employment basic to contin-

WHAT PRICE LAND? When an acre of hay becomes a housing subdivision or an acre of timber turns into an industrial complex, land values rise dramatically.

ERS economists recently asked real estate market reporters across the Nation for their estimates of the market value of several categories of land suitable for nonagricultural uses. The table below details the reporters' responses.

Land used for timber generally had the lowest value, while tracts purchased for commercial or industrial uses commanded the highest prices. (10)

Farming areas	Nonfarm uses of rural land			
	Rural residence	Subdivision	Commercial	Timber
	Dollars per acre ¹			
California specialty	2,690	5,150	12,550	450
Corn Belt, eastern	1,320	1,670	3,160	200
Corn Belt, western	930	1,460	2,840	110
Cotton areas	560	1,100	1,950	110
Florida	930	2,210	3,470	210
General farming	800	1,520	2,730	90
Gulf Coast	940	1,300	3,590	110
Northeast and Lake States dairy	1,000	1,520	3,310	110
Northwest dairy	1,210	1,430	4,220	200
Range livestock	1,120	1,580	3,940	150
Tobacco areas	980	1,640	2,550	140
Wheat areas	660	930	2,170	140
U.S. average	960	1,630	3,340	120

¹ Estimated March 1967.

ued growth. They would also offer the incentives for the young and better educated to stay in the region.

To accomplish these goals, these rural centers would have to provide libraries, a full range of school facilities, parks, stores, adequate public transportation and a variety of places to go for an evening's entertainment. In other words, they would match the work and living opportunities of a complete community. More than that, they would retain the many good things of country living.

Such communities, cultivated in a presently depressed rural region, would provide a much needed boost to the local economy. They could be developed from existing towns or started from scratch. Mostly, they would have something old and something new.

Other advantages of balanced urbanization of rural America are:

Relatively cheap land, attractive scenery, space in which to build without congestion, freedom to preplan the growth of the community and urban development without the expense of leveling existing structures.

All in all, this new Rurbania could be the best of both worlds. (9)

Many Migratory Farmworkers Stay With One Farm Employer All Season

Only four out of 10 migratory farmworkers worked with more than one farmer in 1965.

Of those who worked for one farm employer, half worked less than 25 days during the year; and only a very small percentage, about a tenth, worked at least 150 days.

Migratory farmworkers who worked for more than one employer had a longer work year; about three-tenths worked 150 days or more. (11)

THE WHERE'S OF WATER DATA: What was the average rainfall in northern Michigan last July? How much land was irrigated in Yakima County, Washington in 1964?*

The answers to these and other questions can be found in material collected by many Federal, state and local agencies. Below are listed some of the most important sources of water-related information and maps. These agencies frequently will be able to provide additional sources. (12)

Types of water data	Source
Flood control	Corps of Engineers (Dept. of the Army)—Washington, D.C. or district offices U.S. Geological Survey (Dept. of the Interior)—Washington, D.C. or state geological survey agencies
Irrigation	Bureau of the Census (Dept. of Commerce)—Washington, D.C. Bureau of Reclamation (Dept. of the Interior)—Washington, D.C.
Quality	Federal Water Pollution Control Administration (Dept. of the Interior)—Washington, D.C. Public Health Service (Dept. of Health, Education and Welfare)—Washington, D.C. State health agencies
Rainfall	Weather Bureau (Dept. of Commerce)—Washington, D.C. Statistical Reporting Service (Dept. of Agriculture)—Washington, D.C. or offices in state capitals Environmental Data Service (Dept. of Commerce)—Washington, D.C.
Research	Agricultural Research Service (Dept. of Agriculture)—Washington, D.C. Economic Research Service (Dept. of Agriculture)—Washington, D.C. State agricultural experiment stations Water resources research centers at land grant universities
Supply and use	U.S. Geological Survey (Dept. of Interior)—Washington, D.C. or state geological survey agencies State departments of natural resources State water commissions Forest Service (Dept. of Agriculture)—Washington, D.C.
Water-related farm improvements	Agricultural Stabilization and Conservation Service (Dept. of Agriculture)—Washington, D.C. or county offices
Watersheds and drainage basins	Soil Conservation Service (Dept. of Agriculture)—Washington, D.C. or local and state offices

* For interested readers: The average rainfall in northern Michigan during July was 1 to 1½ inches. Total irrigated acreage in Yakima County was 300,346 in 1964.



THE MARKET SLICE OF BREAD

As the dough rises, so too the cost of putting a loaf of bread on the retailer's shelf. Meanwhile, the farm value remains the unleavened item in ingredients.

If bread is the staff of life it is also the stuff of much concern to the food economist—not to mention the harried homemaker.

In every year but one since 1945, the price of bread in the retail store has risen, frequently with painful sharpness.

In 1967, the housewife typically paid about 22½ cents for a 1-pound loaf of white bread—almost two-thirds more than the average price of 13.5 cents in 1947–49.

But while the retail price of bread was moving sharply upward, the farm value of the wheat and other ingredients was going nowhere. Twenty years ago, the farm value of the ingredients going into a 1-pound loaf of bread stood at 3.3 cents.

In the first 9 months of 1967, the farm value was only 0.2 cent higher.

Wheat, worth about four-fifths of the farm ingredients, was valued at only 2.8 cents per 1-pound loaf.

In fact, the farm value of the ingredients amounted to something less than 16 per cent of the total retail price of bread, compared with the 24 per cent share in the 1940's.

The trip from farm gate to baker's shelf involves a number of handling and processing steps—each with a price tag. And most are more expensive today.

Take the lumped-together cost of such things as storage, transportation, handling and processing all ingredients other than flour, and the cost of nonfarm raw materials. In 1947–49 these charges were 1.1 cent; in 1967, they were 1.6 cent.

The miller gets about 0.6 cent for turning the wheat into flour for the baker.

That's about the same as his share 20 years ago.

When the flour and other ingredients get to the bakery, they accumulate the greatest part of the cost of becoming bread and getting to the retail outlet. By the time the raw ingredients finish their trip from the receiving dock to the shipping platform, they have been stored, processed for baking, and baked. As bread, they have been sliced, wrapped and delivered. For this, the baker-wholesaler gets 12.0 cents of the retail price. In 1947-49 he got 6.3 cents. Or, the baker now gets about 55 per cent of the retail price of a loaf of bread, up from the earlier 47 per cent.

Wages and salaries make up the biggest part of the cost of baking, when the cost of ingredients is excluded—and a slightly larger one today than in earlier years. At 6.2 cents, the cost of labor represents slightly more

than half the baker's margins.

In an effort to offset the rising costs, bakers have turned to greater mechanization.

Delivery and selling functions remain a costly part of the business, despite recent improvements in the volume of bread delivered per route.

Salaries and commissions of bread route driver-salesmen claim about as much of the sales dollar as wage payments.

Combined, these expenses can make the job of moving a loaf of bread from the bakery to a grocery store on the far side of town more costly than transporting the wheat equivalent of the bread from western North Dakota to the east coast.

The remaining 4.6 cents goes to the retailer for his part in getting the loaf of bread from the wheat field to the checkout stand.

It's more than double the retail spread of the late 1940's. (13)

Nearer the Chicken Coop Is to Town, Lower the Cost of Handling Broilers

If things were the same everywhere in the Nation's poultry and egg markets, the system would show up with fairly consistent price spreads for 1961-66.

But they aren't.

And the 12 cities included in a continuing study of poultry prices and margins have markedly different price spreads for different sizes of eggs and turkeys and for frying chickens. The differences can be traced to variations in retail store pricing practices, directness of marketing channels and distance from source of supply.

Among poultry products, the biggest share of the retail price went to producers of large, grade A eggs. It was 58 percent in 1961-66. Turkey producers got about the same portion of the retail price at 57 per cent. The broiler producer averaged half the retail price during the study period.

Los Angeles and San Francisco boasted the lowest-cost market systems for eggs, with farm-to-retail price spreads on large eggs running lower than for any of the other 10 cities. Main causes—supplies came from nearby producers, the marketing system was direct from the producer-processor to retailer, and the retail store margins were lower.

In part because of the need to gather eggs from distant producers, farm-to-retail price spreads for eggs were highest in Washington, D.C., New York, Boston and Cleveland.

For broilers, the cities nearest the big production areas generally had the lowest farm-to-retail spreads. Thus Atlanta, Washington, D.C., and Cleveland—where the retail spreads were no higher than average—were the leaders in low marketing costs. Seattle and San Francisco, on the other hand, with high retail store margins, had the widest

FROM FARM TO MARKET: The difference between the returns the farmer receives for the wheat and other farm-produced ingredients of white bread and the price of that bread to the consumer is growing at a steady pace. Here's a look at what makes the difference on a one-pound loaf of white bread.

Item	1947 - 49	Jan. - Sept. 1967
	Cents	
Farm value for all ingredients of farm origin	3.3	3.5
Charges for transportation, storage, handling of ingredients, processing ingredients other than flour and for nonfarm ingredients	1.1	1.6
Miller's spread	.6	.6
Baker - Wholesaler's spread	6.3	12.0
Retailer's spread	2.2	4.6
Retail price	13.5	22.3

overall farm-to-retail spreads of the 12 cities.

Marketing costs for turkeys, unlike the other poultry categories, behaved in much the same manner in all areas, with fairly uniform price spreads in all 12 cities.

The other four cities in the study were Baltimore, Chicago, St. Louis, and Denver. (14)

The Feed Grain Industry: Channeling A Farm Product Back to Its Source

It is used to be that feed grains were a chicken feed business—a mere byproduct of the milling industry.

But not any more.

The reasons: Increasing stress on scientific production methods for livestock has strengthened demand for formula rations. Pasture land is harder to come by. And—most basic of all—people are eating more meat. It takes more feed grain to produce more meat.

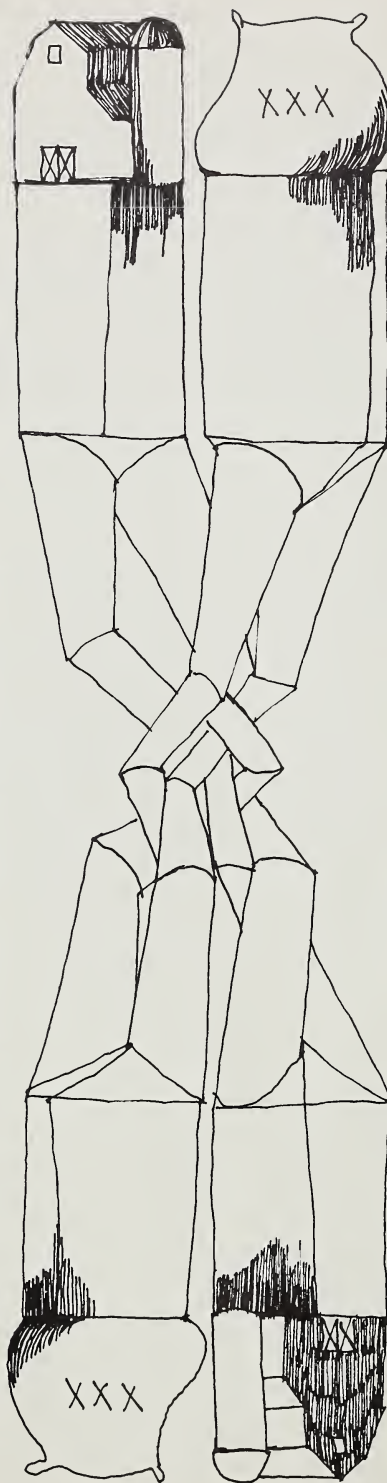
Feed grains are unusual in that the farmer is both producer and consumer. Most feed grain is still fed to livestock on the farm where the grain is grown, or on farms not far away.

Only part of the total is mixed by the feed industry. But this part has been growing steadily—especially since World War II.

From 1950 to 1965, the volume of feed grain sold commercially increased an estimated 40 to 60 per cent. And the value of prepared animal feeds in 1963 was nearly 10 times that in 1939.

The early industry, logically enough, was centered around flour mills, elevators, terminals and feed grain surplus areas.

For example, feed mills located in Pennsylvania, Ohio, Illinois and Missouri prepared much of the formula feed sold to dairy, livestock and poultry producers throughout New England, the Middle Atlantic and Southeastern States.



In recent years, the industry has shifted substantially, both in location and in activities—the better to meet changing needs.

New demand for feed grains has been generated by cattle feedlots, feed mills, poultry processing plants, and individual farmers with specialized operations.

Demand for bulk feed is greater today than ever before. New poultry and livestock production areas have emerged, transportation costs have risen and competition between feed manufacturers has stiffened.

Some of the old-line companies are meeting this competition by retaining their central locations for overall operations. Yet, by using neighborhood mill sites, they offer specialized services to major livestock or poultry enterprises in the area.

Development of a bulk distribution system incorporates extensive automated equipment that speeds bulk feed from central depot to outlying areas.

Many larger mills in the Corn Belt produce high protein feeds or premixes. These are mixed with grains either by the local feeder or by a custom grinding and mixing retail service center.

Other companies specialize in complete feeds, supplements and concentrates.

Firms also have located in grain-deficit areas and thus have encouraged expansion of the local livestock industry. This is particularly true in broiler- and egg-producing areas of the South where large firms that originally introduced the industry now face competition from local retailers who built their own feed mills.

What is the future for feed manufacturing?

Two contradictory trends stand out. One indicates greater use of commercial formula feeds. The other points toward more on-farm milling and mixing.

At present there is no way to determine which trend will be the dominant one in the future. (15)

Here a Specialist, There a Specialist, Everyone's a Farm Product Specialist

In the old days a farmer was just a farmer, a wholesaler was just a wholesaler and a retailer was just a retailer. Today each one tends to be a specialist, too.

Farmers have taken to specializing in one crop or type of livestock, and wholesalers and retailers have gone right along with them.

Now feedlots, field subdivisions, factories, warehouses, transport networks, distribution outlets and a host of other specialty operations have gotten into the marketing act.

Take specialty-line food wholesalers. In 1939, they had 30 per cent of U.S. wholesale food sales.

By 1963 their numbers had increased, new specialty lines had been introduced and their share of the food wholesaling sales had increased to 34 per cent. A decrease might have been expected since chain store warehouse sales—which grew tremendously during the period—are included in the total.

A few Midwest packing plants now find it profitable to limit operations solely to slaughter and sale of "cutter-canner" cow beef—lowest USDA grade.

These firms sell the stripped-out cow tenderloins to restaurants and market the rest of the cow as hamburger. But before they could do this the market had to be large enough to support an efficient packing plant.

Today there are enough restaurants that want cow tenderloin sufficiently close to the plant for economical transportation.

Similarly, specialization cannot take place unless necessary production techniques have been developed.

Further specialization in hog production, for example, awaits better control over the diseases that periodically attack herds. Advances in breeding, feeding and sanitation are also factors.

Unpredictable prices also slow down the process. When government programs help stabilize prices for a commodity, this fact alone speeds up specialization.

Investors can accelerate the process, too, once they are convinced of the potential. This is probably the real meaning of the growth of commercial feedlots, custom-feeding, and futures trading in cattle. It is one reason for inaugurating the putting-out system of broiler production and the current proposal for futures trading in broilers. And it helps motivate grower-participation plans for citrus production and present futures trading in concentrated frozen orange juice.

Each is an attempt to find an effective means of attracting equity investment and devising new loan arrangements. (16)

Flower Checkout

A self-service customer in a florist shop is like the proverbial bull in a china shop.

Delicate blooms are frequently damaged by customers' heavy hands. And shoppers can't make appropriate selections without personal service and professional counsel.

For these reasons, nearly four out of five florists consider self-service ineffective.

Furthermore, few florists have enough customer traffic to warrant a self-service arrangement. Most flower sales are handled by telephone and the buyer doesn't set foot inside the store.

Among small florists—which far outnumber big firms—only 3 per cent place cut flowers within reach of potential buyers; 25 per cent offer self-service for potted plants.

It's different with large shops. Nearly 17 per cent of them use self-service for cut flower sales and 33 per cent for plants.

The one florist in five who favors self-service says that it saves on labor, encourages customer browsing and promotes impulse sales. (17)

Big Business, Big Bills: \$58-Billion Tale of U.S. Food Marketing Costs

It cost \$58 billion to get the Nation's food supply from farm to consumer last year.

This is the bill for marketing food products originating on U.S. farms—it was \$2.7 billion above the 1966 level. And it is expected to go up again this year—mainly because of rising marketing costs per unit handled and the growing volume of products.

Labor costs. In August last year, earnings of food marketing employees averaged \$2.50 per hour—up 5 per cent from the year before. Earnings in 1966 were 39 per cent higher than in 1957–59. Improvements in output per man-hour held the increase in labor cost per unit to 14 per cent above 1957–59.

Rail and truck transportation. The railroad freight ticket for farm commodities was down from 1966, with the decline registering most in rates for grains, tobacco and especially soybeans.

Although a general rail freight rate increase was recently approved by the Interstate Commerce Commission, reductions will probably continue to occur on a selective basis.

Truck rates have remained stable in recent years.

Profits. Profits after taxes for corporations handling food and kindred products averaged 2.2 per cent of sales in the first half of 1967. A year earlier, the figure was 2.5 per cent.

Other costs. Costs of intermediate goods and services used by firms marketing farm-originated foods increased at a faster rate in 1967 than in 1960–66.

In the first half of the year prices of containers, packaging materials, fuel, power and light were about 2 per cent higher than in the first half of 1966. At the same time, prices of services—such as rent and insurance—rose about 5 per cent (23)

Nations
on
the
Nile



Water and power from two new dams—one in Egypt, the other in Sudan—may strengthen agriculture's role in the economic development of Nile Basin nations.

For millenia the Nile has flowed and overflowed on its course from the mountains of Africa to the Mediterranean Sea. But last year the flow became totally under control as a result of two great dams recently erected along its banks. And a new era of economic progress may get underway for the nations

of the Nile Basin.

The Aswan High Dam in Egypt is scheduled for completion early in 1968. The Roseires Dam, further south in the Sudan, was completed in December 1966. Both dams are expected to have a profound impact on the economies of the two countries.

Egypt is at present a food deficit nation. In the past decade, food output has just barely kept pace with population growth—but not with expanding demand resulting from rising per capita incomes. Home-grown food is now about 25 per cent short of domes-

tic needs. Food imports are rising yearly.

The Aswan High Dam is expected to provide Egypt with enough water to:

—Increase the nation's 6.4 million cultivable acreage by 1.3 million acres, or 25 per cent. (Since the Egyptian farmer produces an average of 1.6 crops per year on the same area, this is the equivalent of adding 2.1 million crop acres.)

—Permit improved practices and more intensive use of 700,000 acres of basin land in Upper and Middle Egypt (providing an

equivalent additional cropping area of 200,000 acres).

—Insure an adequate water supply, evenly distributed, for the present 6.4 million irrigated acres.

But vast as the agricultural potential of the Aswan High Dam is, it won't solve all of Egypt's economic problems.

At best, the High Dam would enable Egypt to become self-sufficient in foodstuffs by 1974 *IF*: all the newly reclaimed area were devoted to food production, all the new acreage were as productive as that currently cultivated and no rise occurred in per capita levels of food consumption. But even then, the inexorable pressure of Egypt's rapidly growing population would cancel out the gain in food output by 1980.

Most likely Egypt will face a food deficit well before 1980 because current levels of food consumption won't stand still if per capita incomes rise, and part of the newly acquired land will probably be planted to nonfood crops which can be exported to earn foreign exchange.

Unless food crops are given a larger share of the total cropping area in the future, Egypt's food deficit will equal almost \$150 million by the time the full agricultural potential of the High Dam is realized. This is on the basis of 1957-59 prices and current levels of consumption. It will reach \$200 million if allowance is made for the effect of increased income. At any rate, the deficit will be almost equivalent to the current food deficit.

The true importance of the Aswan Dam, however, lies in the fact that it will "buy time" for Egypt—possibly enough time for other agricultural and industrial development to launch a take-off of the Egyptian economy.

In Sudan, the Roseires Dam is the second of two dams recently completed. The other is the Kashm El Girba, located 400 miles east of Khartoum on the

Atabara River. The Kashm El Girba is the resettlement site for the 50,000 or more Sudanese displaced from the Nile banks by the rising waters behind Egypt's new Aswan High Dam.

The two new Sudanese dams will triple the country's storage capacity for irrigation water. This, in turn, will permit Sudan to double its annual irrigated crop area of approximately 2 million acres, and to use more intensive and improved practices on currently cultivated acreage. Both dams will also eventually supply hydroelectric power and thereby make for greater industrial development.

The Sudan, unlike Egypt, can meet most domestic food needs through domestic production in good crop years. However, over 95 per cent of its foreign exchange earnings accrue from agricultural exports. The extra water and land may enable Sudan to make its presence felt more strongly in the international market for farm products.

Most likely some of the newly reclaimed land will be planted to cotton, Sudan's No. 1 export crop. But the Sudanese government is also attempting to promote a more diversified agriculture.

In the Kashm El Girba area, large amounts of reclaimed land have been set aside for sugar, vegetable and sisal production. A factory with an annual production capacity of 60,000 tons of refined sugar has been established.

In the Roseires Dam area, the additional water will very likely be used to expand acreage planted to sugarcane, peanuts, grain (wheat and sorghum), and lubia (a forage legume). Experimental work is also being undertaken to determine the feasibility of introducing new crops—safflower, sesame, kenaf, castor seed and rice. The degree to which new crops will be promoted depends upon their suitability to the area along with their market potential and world price. (18)

Many Tropical African Nations Work Toward Sweetening Their Economies

Countries of tropical Africa hope to increase sugarcane production—enough to supply their domestic needs for sugar and also enable them to provide a surplus for export.

So far, of several new sugar producers in tropical Africa, only the Congo (Brazzaville) has actually reached the point of being able to export sugar. Last year's sugar exports amounted to 1,555 metric tons valued at \$207,000.

Cameroon expects to become self-sufficient in sugar by 1970. Acreage for sugarcane is being expanded and a 12,000-ton refinery is under construction at Nanga-Eboko, northeast of the capital, Youande.

Nigeria is also producing sugar commercially, but because of its large population, it will be some time before the country is self-sufficient in sugar.

Ghana also has plans for growing sugarcane and processing it into sugar. Two separate projects are being developed—one at Komenda, west of Cape Coast, and the other at Asutsuare, near Akosombo the site of the Volta River Dam.

Senegal, using irrigation water from the Senegal River, hopes to increase production of sugar and thus lessen its needs for imports of the product.

Major producers of sugar in Africa include the Republic of South Africa, Mauritius, the UAR, Rhodesia, Mozambique, Reunion, Uganda, Swaziland, and Malagasy Republic (Madagascar). Some of these countries have exported sugar for many years.

In 1966 the United States imported 60,900 metric tons of sugar from the Republic of South Africa, 14,700 tons from Mauritius, and 7,700 tons from Malagasy Republic. (19).

Traveling Through Africa With Chart And Table: Farm Statistics Improving

"How much milk do your cows give in a year? What is your annual corn yield? How much land do you have under cultivation?"

Routine questions for U.S. farmers. But getting the answers in Africa is something else again. And it's a major problem for agricultural researchers attempting to weigh the continent's food supplies.

In tropical Africa most land is not owned by individuals, so there are no titles, no taxes, no rent—and therefore no need for measuring the land. Hence, yield per acre doesn't mean as much as yield per sack of seed planted.

Because much of their produce is for their own use, many African farmers keep few records of crops and livestock. Even local slaughterhouse and flour mill records are generally not dependable.

Further problems are posed by wide variations in farming methods, food habits, local customs and taboos, income and expenditures for food.

Taxation practices figure, too. Where livestock are taxed no one

wants to reveal exact livestock figures. And even where there is no tax fear, taboos may keep the owner from telling how many cattle he owns.

Some Moslems are afraid of excelling their neighbors because they might be considered proud and sinful. So they claim to own just one miserable sheep when in actuality they may own more.

The statistician's difficulties in Africa fall into the following basic categories:

Administrative. Governments are frequently poor; bureaus are understaffed and ill-equipped; and there are few opportunities for advancement in a career of agricultural statistics.

Technical. Traditional farming methods make output figures hard to determine. Many African crops have a prolonged harvest season so the farmer never sees the year's output in one place. How can anyone estimate the number of fruits or ears of corn taken in several small successive harvests over a period of several months?

Lack of standardization. Many languages, illiteracy, lack of records and diverse units of measurement are roadblocks to statistical as well as agricultural progress.

Lack of interest. The value of statistics is not generally recognized so there is no felt need for them—especially on crops and livestock not sold on the open market.

Despite these factors, agriculture in Africa is advancing, along with the organization of marketing and processing systems.

Cultural hindrances are being overcome, too. And the growth of cities and improvements in transportation is likely to bring subsistence farmers into the market economy and thus make clear the need for more and better facts and figures. (20)

Morocco's Age-Old Farm Technology Can't Meet Modern-Day Food Needs

A camel, a donkey and an iron-tipped wooden plow are still the basic agricultural tools for most of Morocco's farmers. With such primitive equipment—and equally primitive technology—subsistence farming remains the rule for the North African nation.

Only a small fraction of Morocco's sizable agricultural sector is modernized and mechanized. Agriculture has been hard-pressed to produce sufficient food and fiber to support a population

Foreign Spotlight

PAKISTAN. A Swiss-German association of engineering firms has been awarded the contract for the Tarbela Dam project. The Dam is Pakistan's largest civil engineering project and will cost about \$950 million. Its site is 80 miles northwest of Rawalpindi on the Indus River. Water from the dam will be used to irrigate wheat, basmati rice, cotton, citrus and winter vegetables.

SPAIN. The government has frozen wages and prices in an attempt to curb the inflation that has caused the cost of living to rise by nearly a third during the past three years.

UNITED KINGDOM. A 90-day ban on meat imports into the U.K., imposed in December 1967 because of a foot-and-mouth disease outbreak, will seriously affect Argentina. Of the 158,000 metric tons of frozen beef and veal that Argentina exported in 1966, 70 per cent was shipped to the U.K.

PERU. Following the devaluation of the sol in September 1967, the cost of living for Peruvians rose 10 per cent by November 30. Announcements of price increases in December were expected to include a 30 per cent increase for sugar, 18 per cent for bread, and 37 per cent for canned milk. These increases will contribute to further inflation in the nation. (25)

Food for India

India expects a record crop of 95 million tons of food grains in this 1967/68 crop year. This would be about 6 million tons above the record 1964/65 harvest.

But the bumper crop is not big enough to meet the needs of India's growing population and at the same time rebuild stocks depleted by two years of drought.

The country will still have to import sizable quantities of grain. This will include 3.5 million tons of U.S. wheat, flour and grain sorghums provided for on December 30, 1967, when a \$215.5-million supplement to our P. L. 480 agreement with India was signed. (27)

growing at about 3 per cent annually.

In recent years, per capita output of agricultural products has slipped below the level of 1956, when Morocco gained its independence from France and Spain.

Over four-fifths of Morocco's cropland is planted to grains—mostly wheat, barley or corn. Cultural practices are not advanced; grain is threshed as it has been for centuries—by animal treading.

There has been no significant increase in Morocco's yields of cereal crops for the past 30 years. And though once an exporter of wheat and flour, the country often has been forced to import these products in recent years to feed its growing populace.

The modern sector of Moroccan agriculture, controlled by Europeans prior to independence, covers roughly 3 per cent of the country's total land area. But mechanized equipment and up-to-date technology enable this small group of farmers to produce a profusion of commercial crops—citrus fruits, sugar, wine, potatoes and dry legumes and other vegetables.

Processing these food products represented roughly two-fifths of

Morocco's total industrial production in 1965—and agricultural exports accounted for roughly two-fifths of Morocco's total exports. The North African nation is one of the world's leading citrus exporters and also sells other fruits, vegetables, wines and animal products in world markets.

France has long been Morocco's top trading partner, taking 44 percent of its exports and supplying roughly 38 per cent of its imports in 1965.

In 1965, the United States ranked as Morocco's third largest supplier of imports, with sales of agricultural products totaling about \$40 million. Wheat, cottonseed oil, and soybean oil were our leading exports.

Total U.S. imports from Morocco in 1965 were valued at \$6.4 million. About one-fourth was agricultural items, mostly seasonings and spices. (24)

UNCTAD Nations Convene in Delhi For Second Look at Trade Problems

Representatives of many nations—including the U.S.—are meeting this month in New Delhi, India, to discuss trade problems at a second United Nations Conference on Trade and Development (UNCTAD).

The conference is a followup of the first UNCTAD Conference in 1964, initiated by the developing nations to concentrate on their specific trade problems.

Since that first step was taken, terms of trade for the developing nations as a whole have not shown any improvement.

"Terms of trade" compare the change in prices of a nation's exports with the change in prices of its imports.

Generally speaking, the aggregate of prices of the exports and imports of both developed and developing countries has risen in about the same proportion since 1963 and 1964. Thus, as the

price gap between the developing nations' exports and imports remained about the same, their terms of trade since 1963 have remained at 97 per cent of 1958 except for a slight temporary rise to 98 per cent in 1964.

During the year ending September 1967, the developing nations earned only \$99.00 for exports which had brought \$100 in 1958. On the other hand, they paid \$102 for imports which cost them only \$100 in 1958.

In contrast, the developed countries on the average earned \$106 for exports which had brought \$100 in 1958; and they paid \$101 for imports which cost them \$100 in 1958.

(U.S. agriculture has contributed to the "favorable" terms of overall trade of the developed nations. In a product mix of our leading agricultural exports, we earned an average of \$104 during the year ending September 1967 for every \$100 earned a year earlier; and we paid only \$99.90 for each \$100 paid for farm imports a year earlier.)

Dividing the price of exports by the price of imports, the terms of trade of the developing nations prove "unfavorable." They are only 97 per cent of their 1958 level. But the terms of trade for developed nations are "favorable" at 105 per cent. (26)

"Orinoco"

About 5,000 acres of Venezuelan farmland are being planted this year with a variety of cotton named "Orinoco." Plantings will be increased by about 5,000 acres in subsequent seasons.

Developed by the Ministry of Agriculture, the cotton variety reportedly yields about 350 pounds of lint per acre when fertilized. Fiber staples are around 1½ inch.

If yields thus far continue, producers say that Venezuela could meet its national cotton needs in the next three years and then be able to export relatively small quantities. (28)

THE PACKAGE PICTURE



New labels—easier to read, more descriptive of contents—are required on all food packages by July. This should make food buying easier for U.S. shoppers.

No longer will shoppers have to mull over the meaning of “jumbo” size. No longer will they have to search diligently for package weights and product ingredients.

By this July, every food package on grocery shelves across the Nation must have a label meeting the requirements of the Fair Packaging and Labeling Act of 1966. (There are a few excep-

tions. Labels on meats, poultry, tobacco, alcoholic beverages and some other products are already regulated by law and won’t change.)

If you are an astute shopper you may already have spotted some of the new labels on supermarket shelves. But in case you haven’t, here’s what they will look like.

The net contents of the package must be listed on the principal display panel, which is the part the shopper usually sees when the product is on the supermarket shelf. They must be shown:

—In terms of total ounces, fol-

lowing pounds and ounces.

—In bold face type in a color that is in distinct contrast to the rest of label.

—In a type size that is easy to read. All packages in the same size range must use the same minimum size of type.

—In the lower 30 per cent of the display panel.

—Parallel to the base of the package or container.

The name of the product also is to go on the front display panel, along with the product’s form (whole, diced, sliced and so forth) unless it can be seen through the package or is illustrated on the label.

Ingredients must be listed by common names and in order of their importance on one panel of the package, but not necessarily on the front display panel. If a product's ingredients are standardized by the Food and Drug Administration (for example, mayonnaise), any optional ingredients must be listed. And if the proportion of ingredients is important for comparing value, proportions must be stated.

The name, address and zip code of the *manufacturer, packer or distributor* are also required somewhere on the package. If the label meets all regulations except the zip code, it may be used until new labels are made under the law.

The manufacturer does not have to list the number of servings in a package, but if he does, then he must give the size of the servings stated in some common measure such as ounces or cups or tablespoons.

There are some things a manufacturer *cannot* include on a label, under the Fair Packaging and Labeling Act. He cannot use exaggerating terms like "full" gallon or "jumbo" pound. And he cannot use a "cents off" label unless he really is offering his product in local stores at a price lower than the regular retail price.

The packaging law also protects the consumer against half empty containers, unless the extra air space or packing materials are essential to protect the product or are required by the packaging machinery.

What does the packaging law mean to consumers? Basically, it helps them get more precise information about the food products they buy. It also makes it easier for shoppers to compare prices, per ounce, of various products in various package sizes.

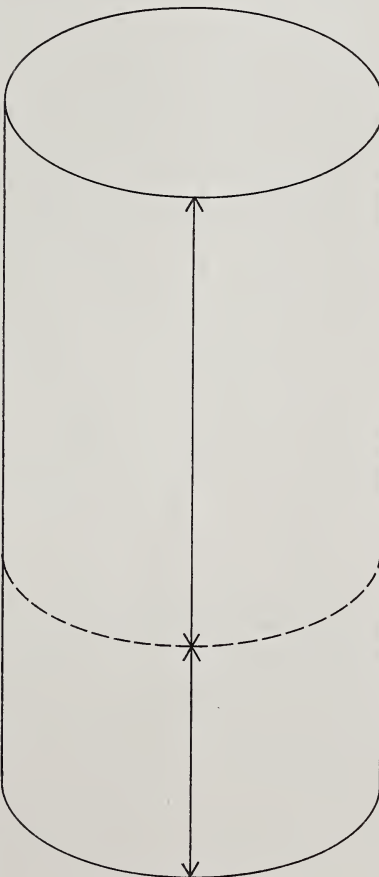
But the law does not standardize package sizes nor does it regulate the amount of a manufacturer's product going into a container. It is still up to the con-

sumer to read the not-so-fine print on the package label.

Two look-alike packages (of equal size but different brands) may not contain the same amount of product. One may weigh only 7 ounces while the other weighs 9½ ounces.

And consumers will still have to make their own mathematical calculations to figure the price per ounce of the same product packed in 9-, 20- or 40-ounce containers, for example.

There is a provision under the law that if a product is packaged in so many sizes that consumers are unable to make good decisions, the Secretary of Commerce may request industry to develop voluntary product standards. But no specific regulations now exist under the law. (21)



U.S. Smokers Puffed Away 11 Billion More Cigarettes of All Types in 1967

If the old-fashioned cigar store Indian could see how U.S. smoking habits have changed since his heyday, he wouldn't believe his painted eyes.

U.S. smokers last year smoked an estimated 552 billion cigarettes—11 billion over 1966.

At the same time, they puffed 8,150 million cigars and cigarillos, smoked 65¾ million pounds of pipe and roll-your-own tobacco, chewed about 64½ million pounds of chewing tobacco, and dipped about 29 million pounds of snuff.

The reason for the 1967 increase in cigarette consumption? More people came of smoking age. Consumer income was at a higher level. And shipments to armed forces were heavier.

According to consumer price indexes of the Bureau of Labor Statistics, prices of filter tip, king size cigarettes in September 1967 (latest index available) rose 5 per cent in a year; and 8 per cent since December 1965.

In late November last year, results of Federal Trade Commission laboratory tests on "tar" and nicotine in the smoke of 59 brands of cigarettes were made public. FTC laboratory tests along these lines are continuing.

Cigar and cigarillo smokers reduced their consumption of these items in 1967 by an estimated 2 per cent from 1966 and 6 per cent from 1965. The decline in cigar consumption since the unusually high peak of 1964 is expected to halt in 1968.

Smoking tobacco sales also have slid year by year from their 1964 highs. Manufacturers' domestic sales in calendar year 1967 were nearly 4 million pounds less than in 1966.

Snuff sales, too, slumped an estimated 2 per cent in 1967. But chewing tobacco consumption held comparatively steady. (29)

MACHINERY COSTS ON SOUTH CAROLINA FARMS. C. P. Butler and B. H. Robinson, Farm Production Economics Division in cooperation with South Carolina Agricultural Experiment Station. S. C. Expt. Sta. AE 309.

The term "farm machinery" encompasses a vast assortment of kinds of farm implements of various sizes designed for particular purposes. Thus machinery costs are related to both size and type of farm.

AN ECONOMIC ANALYSIS OF ALTERNATIVE METHODS OF HARVESTING GREEN PEAS IN EASTERN WASHINGTON AND EASTERN OREGON. N. K. Whittlesey, Washington State Agricultural Experiment Station in cooperation with J. B. Duff, Farm Production Economics Division. Wash. Agri. Expt. Sta. Bul. 684.

The green pea industry of eastern Oregon and eastern Washington annually freezes and processes peas from more than 100,000 cropland acres in the area. A self-propelled green pea combine has been perfected and has found a market with favorable conditions in the area.

NET INCOMES AND RESOURCE VALUATIONS OF OPTIMUM ORGANIZATIONS FOR DAIRY FARMS IN NORTHERN NEW ENGLAND. D. H. Harrington, Farm Production Economics Division and R. A. Andrews, New Hampshire Agricultural Experiment Station. N. H. Agri. Expt. Sta. SB-490.

Quantities of resources used, quality of cows, and the price of milk greatly influence the organization, level of income, and value of resources used on dairy farms.

The proportion in which the resources are combined, as well as the total quantity of resources used, strongly modifies the farm's business and income.



RECENT PUBLICATIONS

The publications listed here are issued by the Economic Research Service and cooperatively by the state universities and colleges. Unless otherwise noted, reports listed here and under Sources are published by ERS. Single copies are available free from The Farm Index, OMS, U.S. Department of Agriculture, Washington, D.C. 20250. State publications (descriptions below include name of experiment station or university after title) may be obtained only by writing to the issuing agencies of the respective states.

AGGREGATE FARM PRODUCTION AND RETURNS UNDER ALTERNATIVE COTTON PRICES AND ALLOTMENTS, THE HIGH PLAINS OF TEXAS. R. E. Hatch, Farm Production Economics Division in cooperation with D. S. Moore, Texas Agricultural Experiment Station. Tex. Agri. Expt. Sta. MP-852.

Information is furnished that will be useful in appraising the effects of various cotton price-allotment levels on farm production, income and resource use in the area.

COTTON HARVESTING IN THE YAZOO-MISSISSIPPI DELTA. M. M. Lindsey and A. M. Heagler, Farm Production Economics Division in cooperation with Mississippi Agricultural Experiment Station. Miss. Agri. Expt. Sta. Bul 739.

The mechanical cottonpicker has gained rather wide acceptance since the period immediately fol-

lowing World War II. Cotton picking by hand has decreased over the last 10 years and the mechanical cottonpicker has accounted for increasing percentages of the cotton picked.

ACTUAL AND OPTIMAL ADJUSTMENT ON 320-ACRE FARMS IN WEST-CENTRAL OHIO, 1957-1959. J. R. Tompkin and F. J. Rafeld, Farm Production Economics Division in cooperation with Ohio Agricultural Experiment Station. Ohio Agri. Expt. Sta. Res. Bul. 1002.

Changes in farm size and farm numbers constituted the most significant adjustments by the farmers in the nine counties examined. (See page 8, this issue).

A COMPARISON OF AGE LEVELS OF FARMERS AND OTHER SELF-EMPLOYED PERSONS. Radoje Nikolitch, Farm Production Economics Division. AER-126.

The common belief that farmers as a group are getting older than people in other occupations is dispelled by evidence in this study.

THE ROLE OF EDUCATION IN ALLEVIATING RURAL POVERTY. Luther G. Tweeten, Oklahoma State University in cooperation with Economic Research Service. AER-114.

This study focuses on the importance of education and its role in raising income and living standards in rural areas characterized by low incomes.

MEASURING THE EFFECT OF IRRIGATION ON RATE OF TECHNOLOGICAL CHANGE, TEXAS HIGH PLAINS; SAN JOAQUIN VALLEY; MISSISSIPPI DELTA. James A. Burns, Natural Resource Economics Division. AER-125.

When irrigation is initiated, wealth is generated at the local and national levels.

STRATEGIES, MODELS, AND ECONOMIC THEORIES OF DEVELOPMENT IN RURAL REGIONS. Brian J. L. Berry, University of Chicago in cooperation with Economic Research Service. AER-127.

One-fifth of the U.S. population is not sharing in increased national prosperity. Poverty is concentrated most noticeably in the heart of big cities, and continues to be the normal lot of rural residents in many places.

WORLDWIDE USE OF AIRPHOTOS IN AGRICULTURE. Henry W. Dill, Jr., Natural Resources Economics Division, Agri. Handbook 344.

Use of airphotos in agriculture is increasing throughout the world. This survey is a roundup of current and projected work in both developed and developing countries. The report includes a number of photographic illustrations.

SUPPLEMENT FOR 1966 TO WOOL STATISTICS AND RELATED DATA, 1920-64. Economic and Statistical Analysis Division. Supplement for 1966 to Stat. Bul. 363.

This publication supersedes the 1965 supplement to Wool Statistics and Related Data, 1920-64 (USDA Statistical Bulletin No. 363, originally published in July, 1965). Statistical Bulletin No. 363 indicated trends affecting

production, consumption, prices, and international trade in wool and other animal fibers. Basic data were also included on man-made fibers. (See November 1967 Farm Index.)

INCOME POSSIBILITIES AND RESOURCE ADJUSTMENT POTENTIALS ON LIVESTOCK FARMS, EAST CENTRAL AND SOUTH CENTRAL OKLAHOMA. P. Leo Strickland, Farm Production Economics Division, W. A. Halbrook, Odell L. Walker, Oklahoma Agricultural Experiment Station. Okla. Agri. Expt. Sta. P-574.

This study was undertaken to determine the nature and magnitude of potential adjustments for livestock producers in East Central and South Central Oklahoma.

COSTS AND RETURNS OF CATTLE FEEDING. Roy N. Van Arsdall, Farm Production Economics Division, in cooperation with Illinois Agricultural Experiment Station. Ill. Agri. Expt. Sta. Bul. AE-4159.

How much does it cost a Midwestern farmer to produce a pound of beef? How do his costs and returns compare with those of cattle feeders in California, Colorado, Texas, and other areas? Cattle feeding is one of the most variable of all agricultural enter-

prises. This paper examines many of the complex questions it poses.

DEMAND AND PRICE ANALYSIS FOR POTATOES. Olman Hee, Economic and Statistical Analysis Division. Tech. Bul. 1380.

This bulletin describes the major demand and price relationships for potatoes. It includes certain background material on economic relations within the potato economy.

SUPPLY AND PRICE DATA ON COTTON GIN NOTES. Shelby H. Holder, Jr., Marketing Economics Division. MRR-809.

Growth in importance of gin notes has been due mainly to their use as a raw material in manufacturing cotton batting. (See January 1968 Farm Index.)

FEED STATISTICS THROUGH 1966. Economic and Statistical Analysis Division. Stat. Bul. 410.

This bulletin adds data through 1966 to long-term historical series on feed grains, byproduct feeds, and forages. It also contains revisions made for the period 1959-65, many of which are based on the 1964 Census of Agriculture and the 1963 Census of Manufactures.

This publication will serve as a statistical handbook to the *Feed Situation*, published five times a year by the Economic Research Service.

Numbers in parentheses at end of stories refer to sources listed below:

1. Farm Cost Situation, FCS-39 (P); 2. G. C. Allen, M. Devers, Livestock-Feed Relationships, 1909-63, Stat. Bul. No. 337 (Supp.) (P); 3. Economic Development Division, Age of Transition, AH-347 (P); 4. W. D. Rasmussen (SM); 5. R. H. Rogers (SM); 6. N. L. LeRay (SM); 7. J. R. Tompkin, F. J. Rafeld, Actual and Optimal Adjustments on a Sample of 320-Acre Farms in West Central Ohio, 1957-59, Ohio Agri. Expt. Sta. Bul. 1002 (P*); 8. T. F. Stinson, Financial Assistance for Industrial Development from State and Local Government (M); 9. A. Bird (SM); 10. B. B. Johnson (SM); 11. A. Raption, Domestic Migratory Farmworkers, Personal and Economic Characteristics, AER-121 (P); 12. W. H. Heneberry (SM); 13. Marketing Economics Division, Marketing Spreads for White Bread (M); 14. J. R. Pedersen, Prices and Price Spreads for Eggs, Frying Chickens and Turkeys in 12 Major Cities, 1961-66, Stat. Bul. No. 405 (P); 15. G. C. Allen, E. F. Hodges, The Structure of Six Farm Input Industries (M); 16. A. B. Paul (SM); 17. N. Havas, (SM); 18.

C. Warren (SM); 19. Foreign Regional Analysis Division, The African and West Asia Agricultural Situation—Midyear Review, ERS For. 199 (P); 20. C. A. Gibbons, Basic Statistical Problems in Evaluating Africa's Food Supply (S); 21. W. S. Hoofnagle, Truth in Packaging (S); 22. Statistical Reporting Service, Number of Farms and Land in Farms, Sp Sy 3 (1-68) (P); 23. Marketing and Transportation Situation, MTS-167 (P); 24. C. Santmyer, Morocco's Agricultural Economy in Brief (M); 25. Foreign Regional Analysis Division (SM); 26. A. Miller, H. Hirsch (SM); 27. Foreign Regional Analysis Division (SM); 28. Foreign Regional Analysis Division (SM); 29. Tobacco Situation, TS-122 (P); 30. National Food Situation, NFS-122 (P).

*Speech (S); published report (P); unpublished manuscript (M); special material (SM); *State publications may be obtained only by writing to the experiment station or university cited.*

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Coffee 'n' Cocoa

Imagine a coffee pot large enough to brew 2 billion pounds of coffee.

That's how much green coffee was roasted in the U.S. during the first three quarters of 1967. Domestic roastings were down 1 per cent from a year earlier.

Imports of coffee (instant, green and roasted) totaled a little over 2.4 billion pounds during January-October, 1967—down 2 per cent from the comparable period a year earlier.

When final figures are in, our consumption of coffee in 1967 is expected to average about 14.5 pounds per person, the same as last year.

Summer coffee breaks were more frequent in '67—possibly due to the cooler-than-normal summer weather in much of the country.

Also coffee prices were down at the retail store. Between February and October, the price of a 1-pound can of coffee dropped from an average of 80.7 cents to 76.1 cents.

Thus, if fourth-quarter roastings are sufficiently high, 1967 per capita coffee consumption may exceed last year's. If this occurs, it would be the first year since 1962 that per capita consumption has not declined.

And for those who are fond of tossing a little coffee into chocolate cakes and icings—for a mocha flavor—here's a bit of news on that subject.

Per capita consumption of cocoa and chocolate products in 1967 was at a relatively high level of around 4.2 pounds. How much of that went into mocha cakes? Probably less than 3 per cent. (30)

THE FARM INDEX

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The contents of this magazine are based largely on research of the Economic Research Service and on material developed in cooperation with state agricultural experiment stations. All articles may be reprinted without permission. For information about the contents, write the editor, the Farm Index, Office of Management Services, U.S. Department of Agriculture, Washington, D.C. 20250. Use of funds for printing this publication approved by the Director of the Bureau of the Budget, May 24, 1967. Subscription orders should be sent to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Price 20 cents (single copy). Subscription price: \$2.00 per year; 75 cents addition for foreign mailing.

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